

What is claimed is:

1. An electrical connector comprising:

a unitary insulative housing including a base and a first shroud extending forwardly from the base, the base defining a plurality of parallel slots therein;

a plurality of parallelly arranged circuit boards, each circuit board having a mating portion for mating with a complementary connector and a contact attaching section with conductive traces thereon, the contact attaching sections being at least partially received in corresponding ones of the slots of the housing;

plural rows of contacts disposed communicatively around the slots, respectively, the contacts each having a section electrically and mechanically attached to corresponding ones of the conductive traces on the circuit boards; and

a metal stiffener attached to the housing and comprising a second shroud vertically spaced from the first shroud, the circuit boards being retained by and between the metal stiffener and the housing, the mating portions of the circuit boards being disposed between the first shroud and the second shroud.

2. The electrical connector as claimed in claim 1, wherein the first shroud defines a plurality of grooves aligned with corresponding slots, and wherein the mating portions of the circuit boards have lower edges received in corresponding grooves.

3. The electrical connector as claimed in claim 1, wherein the second shroud is parallel to the first shroud.

4. The electrical connector as claimed in claim 3, wherein the metal

stiffener comprises a top plate covering a top of the parallelly arranged circuit boards, the top plate including a main body with the second shroud extending forwardly therefrom.

5. The electrical connector as claimed in claim 4, wherein the second shroud includes an upper section extending forwardly from the main body and a lower section bending rearwardly from a front edge of the upper section, the upper and the lower sections being arranged to overlap with each other.

6. The electrical connector as claimed in claim 4, wherein the metal stiffener comprises a rear plate covering a rear of the housing and the circuit boards, the rear plate including positioning fingers for insertion into corresponding through holes of a printed circuit board.

7. The electrical connector as claimed in claim 4, further comprising plural dielectric spacers, and wherein each circuit board is assembled with a corresponding dielectric spacer to form a circuit board module.

8. The electrical connector as claimed in claim 7, wherein the metal stiffener defines a plurality of slots in the top plate adjacent the second shroud, and the dielectric spacers comprise a plurality of protrusions received in the slots to retain upper portions of the circuit board modules.

9. The electrical connector as claimed in claim 8, wherein the housing is vertically spaced from the top plate of the metal stiffener and retains lower portions of the circuit board modules.

10. The electrical connector as claimed in claim 7, wherein every two adjacent circuit board modules are side to side stackable with use of an extended post on one of the two adjacent dielectric spacers and a recessed hole in another of the two adjacent dielectric spacers.

11. The electrical connector as claimed in claim 7, wherein the dielectric spacer of each circuit board module includes a recess and a plurality of laterally extending posts in the recess, and the circuit board is received in the recess of the dielectric spacer and defines a corresponding number of holes receiving the posts.

12. The electrical connector as claimed in claim 7, wherein opposite outermost circuit board modules are arranged in such a manner that the dielectric spacers are located at outermost positions.

13. The electrical connector as claimed in claim 7, wherein the housing defines a row of holes adjacent a rear end thereof, and the dielectric spacers of the circuit board modules comprise a plurality of downwardly extending pins received in the holes.

14. The electrical connector as claimed in claim 7, further comprising an alignment pin, and wherein each of the circuit boards defines a through hole, and each of the dielectric spacers defines an opening aligned with the through hole, the alignment pin inserting through the housing, the through holes of the circuit boards and the openings of the dielectric spacers.

15. The electrical connector as claimed in claim 1, wherein the housing defines a plurality of passageways at opposite sides of each slot and extending through a bottom thereof, and the contacts are soldered to the lower portions of the corresponding circuit boards and extend beyond a bottom of the housing through the passageways.

16. The electrical connector as claimed in claim 1, wherein the contacts are attached to the contact attaching section of the circuit board before they are disposed in the slots of the insulative housing.

17. The electrical connector as claimed in claim 1, wherein the contacts are attached to the contact attaching section of the circuit board after they are disposed in the slots of the insulative housing.

18. An electrical connector comprising:

an insulative housing defining an elongated base extending along a first direction with therein a plurality of parallel slots each extending in a second direction perpendicular to said first direction;

a plurality of parallel circuit boards respectively disposed in the corresponding slots;

a plurality of contacts fastened to each corresponding circuit board and retained in corresponding passageways which communicate with the corresponding slot;

said circuit boards defining aligned through holes, and the housing defining a through bore in alignment with said through holes in the second direction; and

an alignment pin extending through said bore and said through holes in said second direction; wherein

said bore is formed by alternately arranged upward and downward passages which communicate with an exterior in a third direction which is perpendicular to both said first and second directions.

19. The connector as claimed in claim 18, wherein said passages communicate with the corresponding neighboring slots in said second direction, respectively.

20. An electrical connector comprising:

an insulative housing defining an elongated base extending along a first direction with therein a plurality of parallel slots each extending in a second direction perpendicular to said first direction;

a plurality of parallel circuit boards respectively disposed in the corresponding slots, a front portion of each of said circuit boards exposed out of the corresponding slot in said second direction;

a plurality of contacts fastened to each corresponding circuit board and retained in corresponding passageways which communicate with the corresponding slot; and

a metallic stiffener located above the housing; wherein

the housing further includes a first shroud and the stiffener further includes a second shroud opposite to said first shroud to commonly define a space receiving said front portions of the circuit boards in a third direction which is perpendicular to both said first direction and said second direction.

21. The connector as claimed in claim 20, wherein said first shroud defines a plurality of grooves in alignment with the corresponding slots, respectively, in said second direction.